(54) Title: USE OF CONVERGENCE-ENABLED DVD AND WEB SYSTEM

(57) Abstract: A musical Blue Book DVDonCD is distributed primarily through an e-commerce website created by an application services provider (ASP) and advertised through the ASP and producer, artist or other sites, as well as traditional marketing channels. This disk, when played in a standard CD player, will play Red Book audio. When placed in a compatible computer or device, the DVDonCD will play a DVD video spec title. This title will have web links, which will interact directly with the ASP and other websites. From the websites, end users will have the ability to purchase merchandise such as prior albums and future DVDonCDs. End users will also be able to download streaming audio and video from other music and video download websites, which will be encoded by the ASP, and will include web link information, the purpose of which will be to drive the end user to the artist's site.

USE OF CONVERGENCE-ENABLED DVD AND WEB SYSTEM
BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is directed to interactive multimedia systems. More
particularly, the invention is directed to DVD systems which are able to selectively control the
processing of content from the World Wide web and the like.

2. Background of the Related Art

Digital Versatile Discs (or variously Digital Video Discs or DVDs) and the World
Wide web (WWW) are extremely powerful interactive multimedia tools. However, they both have
their drawbacks. Although DVDs are capable of storing large amounts of high-quality video and
audio data, once they are manufactured their content is essentially static; it cannot be changed,
updated or personalized. Also, the limited interactivity does not meet the demands of many of today's
computer-literate users. Further, although the WWW is dynamic and rapidly changing, it is not
capable of providing high-quality multimedia content in real time for many users due to limited
bandwidth.

In the traditional music industry paradigm, content is usually to be distributed via one
of several types of media: vinyl, tape (video or cassette), optical media (CD, laser disc or DVD).
This model is focused on the concept of selling a tangible as the profit center. A great deal of
marketing and promotion is necessary to assure a sizable return on the investment in creating the
content. Another substantial cost must be considered for distribution in this model. The tangible
must be created, replicated and distributed prior to any return, which is generated by a consumer
purchase.

SUMMARY OF THE INVENTION

The present invention has been made with the above problems of the prior art in
mind, and a first object of the present invention is to provide a system for integrating static and
interactive multimedia delivery systems such as DVD systems and the WWW.

It is another object of the present invention to provide a method of generating revenue
based on such a system.

The above objects are achieved according to an aspect of the present invention by
providing a system which integrates a DVD system and WWW content or similarly presented
information, such as HTML-formatted material. Universal Resource Locator (URL) information
corresponding to sites or media streams accessible via the WWW or another content delivery system
are stored in fields within the DVD data. When a user actuates a DVD element that has a
corresponding URL the information from that site is displayed in a web browser to enhance the DVD
viewing experience. Conversely, the DVD system can be controlled when the user actuates HTML
information from a web page or the like. This arrangement provides for two-way control, i. e. ,
HTML is able to control DVD content and vice-versa. Having the WWW information embedded in

the DVD brings a number of benefits, perhaps the foremost of which is the ability to write a "one size fits all" template web page that can interrogate the DVD for URL information and present WWW content corresponding to the URL information and synchronized with the DVD content.

Further, according to another aspect of the present invention, a musical Blue Book
5   DVDonCD (a disk that can be played in any regular consumer CD player to hear music, or placed in a computer-based CD-ROM device to view multimedia content) is distributed primarily through an e-commerce website created by an application services provider (ASP) and advertised through the ASP and producer, artist or other sites, as well as traditional marketing channels. This disk, when played in a standard CD player, will play Red Book audio. When placed in a compatible computer or device,
10 the DVDonCD will play a DVD video spec title. This title will have web links, which will interact directly with an ASP's site and other websites. From the websites, end users will have the ability to purchase merchandise such as prior works and future DVDonCDs. End users will also be able to download streaming audio and video from other music and video download websites, which will be encoded by the ASP, and will include web link information, the purpose of which will be to drive the
15 end user to the artist's site.

A business model according to another aspect of the present invention is based on a shift of the profit center away from the point of purchase at a retail entity to ongoing revenue streams from interaction with the content. In this model, the content itself becomes a large percentage of the marketing mechanism, which, in turn, leads to the distribution of new and legacy content where the
20 cycle begins again.

Another advantage of this model is the fact that it does not undermine the existing model, as do many of the current streaming and downloadable media models. Whereas those models portray a somewhat dissonant alternative to the entrenched standard with a lack of consideration for the economics of the music industry (which ultimately affects the artists the most), a model according
25 to this aspect as shown in FIG. 4 brings a value added to the existing optical media (CD/DVD) deliverable standard. This new model also considers the necessity of capturing the mind share of the emerging streaming market and establishes a *de facto* foothold for a smooth transition over the next ten years.

The above revenue model enables the music industry to exploit the revenue channels
30 necessary to succeed in this changing marketplace. New revenue channels explored equals more money to the record labels. Added value to the end user equals more albums sold.

Another aspect of the present invention offers advantages over services such as subscription-based streaming media services because of the DVD's quality and playback advantages, and because of the Internet's worldwide distribution advantage. Even so, this preferred embodiment
35 uses the Internet in much the same way as broadband. Offering exclusive streams off the Internet and then offering a collection of streams on a DVDonCD according to this preferred embodiment takes

advantage of broadband's worldwide distribution and yet continues the standard of high-quality MPEG-1 video.

<div align="center">BRIEF DESCRIPTION OF THE DRAWINGS</div>

These features and advantages of the present invention are better understood by

5   reading the following detailed description of an embodiment, taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a block diagram of an integrated DVD and web browser system according to a preferred embodiment of the present invention;

FIGURE 2 is an example screen showing DVD and WWW playback according to

10   this preferred embodiment; and

FIGURE 3 is a flowchart showing the steps in displaying DVD content in conjunction with WWW or streamed media content in this preferred embodiment;

FIGURE 4 shows a revenue model according to another preferred embodiment of the present invention;

15   FIGURE 5 shows combined functionality of localized content, Internet content and DVD according to this preferred embodiment;

FIGURE 6 shows an infrastructure of this preferred embodiment; and

FIGURE 7 shows database technology in this preferred embodiment which provides data acquisition and mining opportunities.

20   <div align="center">DETAILED DESCRIPTION OF</div>

<div align="center">PRESENTLY PREFERRED EXEMPLARY EMBODIMENT</div>

FIG. 1 shows an integrated DVD/WWW system (preferably known as a convergence enabled system) according to a preferred embodiment of the present invention. As is well known in the art, web browser 10 is preferably implemented on a personal computer or the like. The browser

25   can preferably simultaneously display web content and DVD content or can be readily adapted to do so as will be apparent to those skilled in the art. Also, the DVD system 20 is preferably a DVD drive and associated support circuitry installed within the computer; however, a dedicated DVD player communicable with and controllable by the computer may also be used for this purpose. Further, DVD 70 played by the DVD system 20 is preferably specially authored as described in greater detail

30   below.

In use, the browser 10 displays a web page 30 defined by, e. g. , HTML code, and stored at a site specified by the user to the browser 10. The browser 10 may also display a separate or integrated playback field 40, i. e. , a window, frame or other field) for video content from DVD system 20 or streamed content from the WWW, with synchronized audio from the DVD 20 or

35   streamed content played on the computer's speakers as is known in the art (see FIG. 2). Preferably, the playback field 40 is generated by a media player 80, such as the Microsoft Windows Media

<div align="center">3</div>

Player, with a call thereto embedded in HTML code for the displayed web page as is known in the art. Other multimedia players may also be adapted for this purpose as well.

As is known in the art, DVD systems may be configured to display buttons and the like to enable a user to navigate the DVD 70 and access various portions thereof. In a dedicated DVD player, these buttons are accessed by a cursor controlled by cursor direction keys on the DVD player's console, remote control or the like; however, when a DVD is played in the computer using the media player 80, the buttons may be accessed by positioning or clicking the computer's mouse cursor on the buttons displayed by the media player 80 as is common with graphical user interfaces as shown in Step 110 of FIG. 3. When this occurs, the media player 80 generates a Windows event message such as EC_DVD_Button_Change signifying that a particular button has been selected or actuated and providing its number (Step 120). In the preferred embodiment, this message is intercepted by an event script 50 which calls DVDTextInfoParser 60 (Step 130), a custom object that uses the current DVD button (provided by the media player 80 via EC_DVD_Button_Change) and information extracted from a particular field within the DVD 70 corresponding to that button as described in greater detail below in order to obtain a URL (Step 140) that can be accessed by the web browser 10 and displayed on the web page 30 (Step 150).

More specifically, as is known in the art the media player 80 preferably generates information on the current status of the DVD 70 as part of its playback process. The DVD 70 is preferably authored to cause the DVD system 20 to write the index of the currently displayed menu into a specific General DVD parameter (GPRM) by, e. g. , inserting DVD commands at strategic places into the DVD data set during its compilation. An example of a DVD authoring system which automatically performs this task is described in United States Patent Application No. 09/010,267 to Brodersen et al. , incorporated herein by reference. A commercially available system which automatically performs this task is the DVD Maestro system of Spruce Technologies of San Jose, CA.

In Step 100, the media player 80 will then emulate this register information (the GPRMs) when playing DVDs; for example, the method in which the windows media player does this is explained in Microsoft's documentation for the program. The menu index thus obtained from the GPRMs in Step 142 can be used in Step 144 as an index into corresponding fields in the DVD's TXTDT_MG structure, also read in by the media player 80, which contains URLs stored there by the DVD authoring system. As detailed in the DVD specification, the TXTDT_MG structure within the DVD data includes various predefined fields holding specified information such as producer name, vocalist name, languages and the like, and a provider-unique field designated for such use may be used to store the URL. Thus, by monitoring the designated GPRM, an outside program such as the event script 50 can reliably derive the appropriate URL from the current menu index and the current button.

For systems using Microsoft DirectShow, the DVDTextInfoParser object (based on an ATL COM interface named IDVDTextInfoParser) can preferably facilitate playback of DVD 70 using the DirectShow DVDGraphBuilder interface; however, other techniques also will be readily apparent to those skilled in the art. As described above, DVDTextInfoParser then

5　accesses the DirectShow IDVDInfo interface to read in text data. This technique is used in the preferred embodiment; however, other techniques can be used with platforms on which DirectShow is not available; for example, the TXTDT_MG structure can be directly read in from the DVD 70.

Preferably, event script 50 is a Java script; however, alternative implementations such as a Microsoft Visual Basic Script may be used instead. Also, DVDTextInfoParser 60 is

10　preferably an ActiveX control using an ATL COM interface; however, other program implementations may be used as well. Further, although DVDTextInfoParser 60 may access the DVD system 20 each time a URL is needed, in the preferred embodiment it preferably reads the TXTDT_MG structure into memory each time a DVD 70 is initialized, and references the information in memory. This is because the Windows Media Player used as the media player 80 in the preferred

15　embodiment does not work well with other objects simultaneously accessing interfaces to the same DVD 70. If this problem is resolved in future versions of DirectShow, the access-as-needed scheme might work equally well.

Thus, a "one size fits all" template web page could be made in which a field 40 displays DVD playback while a window 30 displays web content. When the user selects a button, the

20　media player 80 generates an EC_Button_Change event which is acted upon by the event script 50 to call DVDTextInfoParser 60 based on the button number and menu title index number to obtain the corresponding URL from the DVD's TXTDT_MG structure. The content corresponding to the retrieved URL is then displayed in the web page 30. Similarly, when an EC_Domain_Change or EC_Chapter_Change event occurs, DVDTextInfoParser 60 could be called to check for

25　corresponding URLs and synchronize the web content in web page 30 to the current chapter displayed in playback field 40. If the corresponding URL content contains a reference to streaming content, the streaming video can be displayed in combination with or in place of the DVD content.

In a similar manner, HTML code in the web page 30 may make calls to the event script 50 or a similar script to retrieve the URLs stored in TXTDT_MG as will be readily apparent to

30　those skilled in the art. These may then be displayed in the web page 30 as hyperlinks, controls or the like to enable the browser to display web content 30 corresponding to URLS in the DVD 70. Thus, rather than or in conjunction with controlling the system by accessing features of the DVD display 40 as described above, the system may be controlled by accessing features of the web page 30.

The above description of this preferred embodiment has been presented for

35　explanation purposes only. Modifications, embellishments and alternative implementations of the invention will be readily apparent those skilled in the art and are encompassed by the invention.

For example, in this preferred embodiment the URLs associated with the DVD menu buttons have been references to web pages or streaming video; however, the URLs may point to other types of resources and rely on the system to call appropriate helper applications; for example, a URL might point to a file in Adobe Acrobat PDF format, so that when the browser accesses it the Adobe Acrobat reader will automatically be called to display it. Even further, the URLs need not point to data files, but can also refer to programs which will be played when the corresponding buttons are actuated or the like.

Such variations will be readily apparent to those skilled in the art.

Since the current market size of DVD players is less than 60 million, another preferred embodiment uses DVD technology in a new way. Through the creation of Blue Book spec DVDonCDs, it is possible to reach the existing market of several billion CD Players which can playback the audio and over 250 million computers capable of taking advantage of the internet linked interactive content. Already a widely used spec within the music industry, Blue Book can be used to place a web-linked DVD video spec image and DVD player onto a standard CD.

These hybrid titles are web-enabled with the use of convergence technology. Internet interaction makes the title constantly updateable with new information about the artist and new sponsorship opportunities, and opens up a new avenue of targeted and anonymous data acquisition.

A typical Blue Book DVDonCD as shown in FIG. 5 can have an entire nine to eleven song album as well as a full screen web linked DVD video of a song with multiple menus and a key to an encrypted members site which can only be accessed via the DVDonCD.

DVDonCD represents localized and Internet content with DVD functionality unmatched by either broadband in quality, or DVD in accessibility.

Preferably, another preferred embodiment is implemented with a 155 megabit (OC3) ATM Virtual Local Area Network (VLAN). This arrangement an immediate add on to a network of a continuous five megabit stream with bursts up to 100 megabits and almost unlimited scalability to serve any Internet need including data acquisition, downloads and streaming.

This embodiment preferably uses a universal delivery network (UDN) as shown in FIG. 6. This UDN allows client sites to provide to the end user the kind of quality of service (QoS) found to date only on expensive ATM networks. This will guarantee an unparalleled experience.

The above illustration indicates unlimited scalability on the part of this embodiment. Thus, injection of content of any size will not be met with ramp-up difficulties.

Database technology allows for specific data acquisition and data mining opportunities as shown in FIG. 7. Reports generated on titles and users are value-added to any marketing effort. Custom profile ad placement gives strength to any Internet advertising scheme and maximizes return on investment.

To deliver advertising and sponsorships to clients' websites, the method according to the preferred embodiment has a music-centric advertiser base. Preferably, this is provided by a

network that aggregates music-oriented websites to sell advertising inventory across clearly defined demographic, music and geographic audiences.

A person who buys an album that is convergence enabled according to this preferred embodiment will be given an option to enter a fan e-mail list where they can chat with other fans and receive periodic e-mails from the artist themselves on when they are coming to that person's hometown, and how they can buy preferred fan tickets. An artist on the road can send one e-mail to their entire member list in a given area. By use of data acquisition technology, these e-mails will service advertising customized to each individual and link directly to electronic storefronts to provide the opportunity to participate in a promotion such as reduced concert ticket or pre-release album sales.

A DVDonCD according to this preferred embodiment may play in a Windows based machine that has access to the web. This is a stand-alone player, which self loads in to RAM leaving no footprint or dependency on system features. It is a regular Blue Book CD. The disk can be listened to in any CD player. When played in a computer, however, unlike the enhanced CD content that is out there right now, this video is high-quality DVD spec video, and looks quite good even in full screen mode. There can be up to, e. g. , nine camera angles that can be switched on the fly. Further, synchronous web links pop up automatically and display everything relevant to the music including band home pages, tour information, e-commerce sites, etc.

Relationships with large Internet backbone and technology companies and related ISP's, cable modem and DSL providers will provide the ability to offer world class hosting capabilities. Due to the volume and profile of the potential client base, it will be possible to partner with these entities in offering this value added service depending on the projects' needs.

While local assets are clearly the best solution to reach a mass market for the foreseeable future, the ability to stream content is in high demand.

Given the need for integrated sites to have functionality, which can be engineered using the text info parser described above as well as standard web development technology, service packages for maintaining, reporting and updating will be offered. This is a large value added when dealing with sites where multiple revenue streams are considered. An example is a hosted site where banner ads are rotated and hits are tracked for revenue. This same site may also stream media with SMLE-embedded commercials, which make incremental profits based on download volume. Reports are issued to the client and the advertisers articulating performance. A storefront may also be included to allow viewers to purchase items which adds e-commerce and fulfillment necessities.

A revenue model according to another preferred embodiment of the present invention takes the current standard for content creation, such as recording, mixing and mastering, and injects the concept of capturing the entire process. This content can be used to create market awareness similar to the way the movie industry uses movie trailers.

The aforementioned audio and video clips are distributed via the proxy servers of a large scale data stream provider such as the Real Broadcast Network or Yahoo's Broadcast. com. By

giving these entities the ability to create real estate with provided content where they can generate a substantial revenue stream from banner ad sponsorship placement, they have incentive to drive traffic to clips in the preferred embodiment.

Whether its Real's SureStream technology with SMIL Boston, Windows Advanced

5   Streaming Format or an MPEG 4 player, delivered streams are interactive. Using state of the art video post equipment such as Maya, After Effects, Lightwave, 3d Studio Max, Fast 601, Media 100 and Avid as well as animation technology such as VB, JavaScript and Flash, each clip may be preceded with a sponsored advertisement similar to a television commercial.

The value added to the sponsor is enormous in that the quality and interactive ability

10   of this media is excellent. Unlike an ordinary banner ad, the sponsor's commercial has center stage while the video content is loading. Add to this the ability for the end user to interact with the content and one now has a compelling new avenue to capture an impulse buy or lead the viewer to a website with a much higher likelihood for buy-in.

Once the stream is loaded and the commercial is over the artist's clip starts. While

15   this clip is playing the artist website is opened and the user is exposed to synchronous HTML events for the duration of the clip. When the clip is done, the artist page remains open.

By charging on a per download basis with only a setup charge, the sponsors are better served in that they only pay for effectively delivered ads.

Although this represents one revenue stream in this preferred embodiment, it is, in

20   fact, simply one method of raising the public's awareness of musical artists. By giving incentive to large scale providers such as Real and Yahoo, a provider of content according to the preferred embodiment enjoy top billing on their portals.

Artists will have state of the art websites designed by award winning companies. Each artist site is given a storefront for international e-commerce where visitors can purchase

25   everything from t-shirts, posters and concert tickets to web-enabled CDs and DVDs.

Once on the members site, the end user can enjoy access to video streams of concerts, special promotional offers, discounted DVD and DVDonCD sales as well as a 128 bit encrypted MP3 player which will allow the user to download music which can only be played from their computer

30   and compatible playback devices.

By posting several unreleased songs to the members site every month as well as current content such as streaming concert footage, interviews, access to full 70 minutes DVDonCD of concert footage and backstage coverage, it is possible to drive traffic back to the site over and over. This repeated interaction with the website creates an entirely new vertical market. Not only does this

35   market have great forward potential, but by having the disk itself be the key with which to access the members site, the model according to the preferred embodiment creates an added value to drive DVDonCD sales from the public site as well as traditional retail entities.

Convergence enabled music productions give a better entertainment value to the consumer than traditional CDs. This equals a stronger justification to buy an album in a world where most songs can be downloaded for free. Every feature on these new titles will only be available to those who purchase the disc. In this model, the free Downloadable MP3s and streams will be

5   accompanied by short video ads and web links. The consumer will get the same free experience even as advertising revenue is coming in.

Using the preferred embodiment, record labels will offer greater value for the purchase price of an album – video, web and content that does not die. In essence, a greater justification to buy an album that otherwise could be downloaded via an Internet server. For example,

10   the websites accessed by the disk are inaccessible unless the disk is in the machine. Along those same lines, it is also possible to use bonus content which also will be inaccessible unless the disk is in the machine, thus protecting the intellectual property interests of the artist and the label.

Record labels end up with is a way to make huge advertising/sponsorship revenue off the disk. Each URL that pops up will contain a number of banner ads. Each camera angle can be

15   sponsored. Local corporate video ads (sold like a short TV spot) will be available on each disk. Director's commentary may be included, as well as access to web-based streams that get paid out at a predetermined amount per click. Because these are pre-sales advertising spots, most of this money would get paid out up front even before the disk went out.

Further, an application service provider (ASP) or other properly situated party in this

20   preferred embodiment can operate as a one-stop-shop for design, architecture, e-commerce storefronts, hosting, streaming, audio production, and consulting. Through partnerships it can offer the highest quality hosting and streaming backbone; advertising and sponsorship servicing; exclusive fan e-mail lists for album purchasers.

The present invention redefines the boundaries of advanced title architecture. The

25   potential to incorporate synchronous links to external applications such as a web browser opens up a new universe in which the DVD and DVDonCD become the solution to content delivery barriers with regards to bandwidth and interactivity that have presented themselves since the beginning.

With this new potential arises a new model for multimedia production. No longer are web design companies, software developers, e-commerce companies, production and post-production

30   facilities considered to be in separate industries. The demand for title creation, which necessitates the convergence and collaboration of these services is immediate. This embodiment answers this demand by creating an entity whose prime directive is to act as an enabling resource and focal point facilitating the convergence of technology and media.

An ASP in this embodiment can position itself as a technology enabler, providing

35   clients with a unique network for collaboration, creation and delivery of their multimedia titles. Through a network of strategic partners, such a company may offer a full array of services including consulting, hosting, data acquisition, administration, e-commerce, streaming media, web design and

production.

Convergence services according to another preferred embodiment of the present invention leverage this convergence process and text info parser as described in the above-referenced patent application that allow for full duplex communication between a web-enabled DVD or

5   DVDonCD and the Internet. These convergence-enabled products provide a vehicle for hybrid on-line/off-line rich media distribution and advanced data acquisition for entertainment, business to business, business to consumer and e-commerce titles without depending on broadband access to produce results.

Due to the new scope of potential for advanced title authoring, many companies will

10 not be capable of providing an end-to-end solution to their customers. By allowing an opportunity to partner with a company providing convergence services and a network of strategic partners, these clients now have an advantage. Such clients can now provide top tier services which encompass every aspect of advanced title production from conception through packaging and fulfillment. The emphasis is to empower clients with the ability to offer all that today's advanced DVD and

15 DVDonCD titles can deliver.

Using a network collaboration interface according to another preferred embodiment, a website may be established where various production entities as well as their clients may log on to storyboard, demonstrate functionality, submit assets and design for approval and consistency as well as track progress. This allows clients to overcome many of the barriers involved with project

20 management for complex title production.

Every aspect of the project, including assets and functionality, can be logged and shared by multiple remote entities. In the case of a site which may be host to multiple disks on either DVD or DVDonCD, this type of interface solution becomes invaluable. It becomes the focal point for tracking and articulating every aspect of the project from asset design to web integration to database

25 functionality.

The long-term goal is to empower an authoring solutions client base to offer Internet services as a value added to their existing authoring services.

A network of web design and development facilities according to another embodiment may be established by packaging development kits and plug-ins for sale over the

30 Internet. web may use such enabling software to excel at their ability to create spectacular websites and offer the value added integration of local asset DVDs and DVDonCDs.

These hybrid titles will be web-enabled with the use of convergence technologies as described herein. Internet interaction makes the title constantly updateable with new information about the artist, new sponsorship opportunities, and opens up a new avenue of targeted and

35 anonymous data acquisition. An ASP in this embodiment will create the website and host it on its servers. Such an ASP will also provide an e-commerce structure, banner ad sales, and data acquisition model for the site. These new music titles may be called "Portals on a Disk," and a large

portion of the revenue model may be based on sponsorship and data acquisition revenues therefrom.

Products and services will prove valuable in a number of different markets: consumers of interactive rich media web content; corporate event sponsors, concert and recording acts; media companies; corporate business customers for web events; seminars; and training and

5   educational institutions are some of the company's target markets. To illustrate how these markets could be served by the solutions provided by Spruce, several example scenarios are provided below.

For example, six months after buying a DVDonCD title, a consumer can put the CD into her computer and get the latest tour information and merchandise, have key access to websites that read the CD to allow entry, and finally offer another video DVDonCD for free. These free disks

10   will be paid for by major sponsors. The goal is to further perpetuate a scheme of not only selling top-quality music video disks, but exploiting the interaction with the content and bringing in sponsorship and data acquisition revenues. This represents a new paradigm of profit generation for the existing music industry by shifting the emphasis from item sales to eyeballs. Record labels will be able to make more money through ad-placement and sponsorship on a platinum artist's content then on album

15   sales.

This model entails embedding web links into downloadable media files such as MP3, Real streaming media, Windows streaming media and MPEG-4 that will be freely distribute to drive traffic to the artist's website. The site will market the value added to the consumer by obtaining the disk. An example would be the disk includes a key access to a portal where logging on would open

20   up an otherwise inaccessible web page where exclusive merchandise and other music can be bought and downloaded.

This ensures not only a compelling justification to buy the actual CD, but also a revenue model that has eluded record labels and artists alike since the advent of MP3 download websites and programs like Napster.

25   Another preferred embodiment employs an integration of the tools and services necessary to create and maintain sites and titles. Existing convergence-enabled applications utilize the text info parser for the design and playback of web-DVD and web-DVDonCD optical discs, with full duplex communications between local broadband and remote narrowband content. Convergence-enabled discs provide the viewer with a compelling interactive viewing experience irrespective of

30   broadband access, in effect solving today's broadband limitations with a customizable solution to meet the needs of entertainment, corporate and e-commerce customers.

An example DVDonCD might be an interactive, real-time medical information system designed for use at the point of care, a web-DVD disc that will revolutionize remote condition care. This will offer clinics and doctor's offices a DVDonCD to give to their patients. The patients

35   will use the instructional disks to learn about their condition, and enable them to access the Internet to get current up-to-date information. Patients will also be able to access a secure and personalized web page where they can communicate with their doctor by entering in a series of symptoms and posting

comments. Doctors, in turn, will be able to check up on their patients more efficiently then ever before, and thus will be able to increase their patient load. By providing hosting and data acquisition services, an ASP in this embodiment will generate revenues from banner ads and data mining.

5   For an e-zine, the ASP can create a monthly catalog for a company on which clips from sponsored events and webcasts could be included and distributed in the form of a compelling e-zine. Consumers would receive the e-zine free in the mail on disc (DVD or DVDonCD). The disc would combine rich video content of the various artists and events, high quality samples of content to be purchased, interviews, concert information and the ability to purchase merchandise all on one disc. The price of the disk will be paid for by corporate sponsors who will benefit from a direct targeted
10   marketing scheme, which will also have a viral element as the discs are copied by end users.

Since the disc uses high quality graphical elements that are assembled from an HTML template that lives on the ASP's server, the viewers experience can change as often as the ASP or client wishes. The server side uses a combination of mainstream tracking and gathering techniques as well as an acquisition model that works best with the text info parser. This will allow clients to
15   deliver interactive add banners and promotional events to a specified demographic. In this way, one disc can be a totally different experience for everyone that views it. A "Virtual Add" ability also allows for more and higher quality sponsor accounts than any print or broadcast media.

For B-to-B training, a disc that contains a business or sales training program can be produced to take advantage of all of the features of DVD, such as multiple language tracks and
20   multiple camera angles. Such a disk can be distributed worldwide. Viewers can interact directly with the content and be qualified based on their performance. Since server side acquisition can be set up to work with any database format, the participants could have their files updated on the fly. The discs themselves would be usable at any time as an offline reference.

For education, by forming relationships with top interactive curriculum authoring
25   software companies, web-enabled DVD and DVDonCD ASPs offer the most effective scenario for creating and administering extended classroom content. For example, a professor can work with the ASP to author several discs that can be distributed to students to take home. A student may now view lectures and seminars from top professors from around the world in their own home. Class work and tests can be administered remotely via the website. Scheduled class hours with chat boards would
30   give the student the ability to refer to every discussion that ever took place at any given time, and the discs could be saved as future references.

For marketing, the ASP will have the ability to create a DVDonCD that could be given out by dealers, and distributed at trade shows or sent upon requests for information, which would be kept current through interaction with embedded Internet communications. The disc would
35   contain a demonstration of the ease of use of the company's products, a technical specification reference, examples of how the company's technology might be used, current pricing and configurations as well as instant access to the nearest dealer.

By tracking information from the viewers, the ASP could answer many questions regarding the viewer and his or her interests. An automated process notifying the dealer of the client and providing a brief rundown on the information collected would greatly enhance the company's pre-sales ability. The RSM could easily follow up with the dealer to check progress and add

5   assistance.

Another exemplary product is a musical and video performance that uses various audio recording equipment, multiple digital video cameras, and DVD authoring technologies. The entire production is onto a CD or DVDonCD, and sold or otherwise exploited to the general public. Typically, such a disc will contain nine to fifteen songs; three to five video clips; three to five live

10   video performances to be purposed for streaming; three to five "jams" to be used by end users for promotional purposes; and an e-commerce website which will offer the album and other relevant merchandise for sale, and be the focal point for future projects.

The nine to fifteen songs and three to five video clips will be purposed as a Blue Book DVDonCD for distribution primarily through the e-commerce website. This disk, when played

15   in a standard CD player, will play Red Book audio. When placed in a compatible computer or device, the DVDonCD will play the DVD video spec title. This title will have web links, which will interact directly with the e-commerce website(s). From the website, end users will have the ability to purchase merchandise such as prior albums and future DVDonCDs. End users will also be able to download streaming audio and video from other music and video download websites, which will be

20   encoded by the web author, and will include web link information, the purpose of which will be to drive the end user to the e-commerce website.

Other exemplary products include musical and video performances that will utilize various audio recording equipment, multiple digital video cameras, and DVD authoring technologies. An initial teaser disk that will have short versions of various productions in a series and will connect

25   to a related e-commerce website hosted by an ASP; nineteen series titles with accompanying websites and advertising, hosted by the ASP, and utilizing data acquisition models and other revenue-generating tactics. Each production will be burned onto a CD (or DVDonCD), and sold or otherwise exploited to the general public.

The initial teaser disk will be distributed for free or for a nominal fee to interested

30   listeners across the globe. The teasers will be handed out at concerts, trade shows, as part of mass mailing schemes, and other methods.

The individual series titles will be purposed as a Blue Book DVDonCD for distribution primarily through an e-commerce website created by the ASP and other traditional distribution models, and advertised through the ASP and producer, artist or other sites, as well as

35   traditional marketing channels. This disk, when played in a standard CD player, will play Red Book audio. When placed in a compatible computer or device, the DVDonCD will play the DVD video spec title. This title will have web links, which will interact directly with the ASP and other websites.
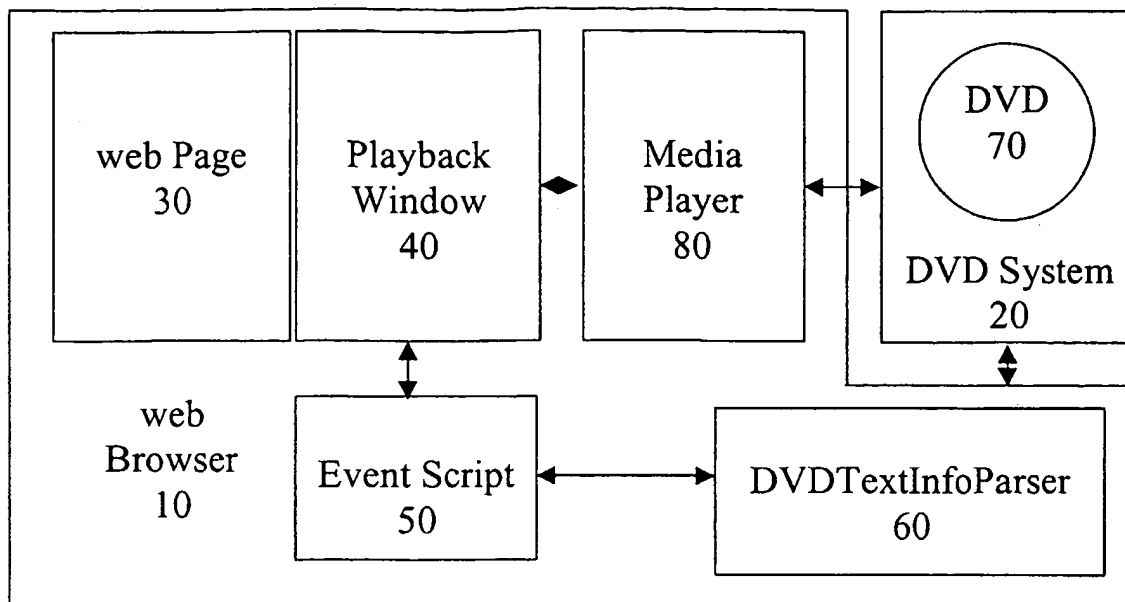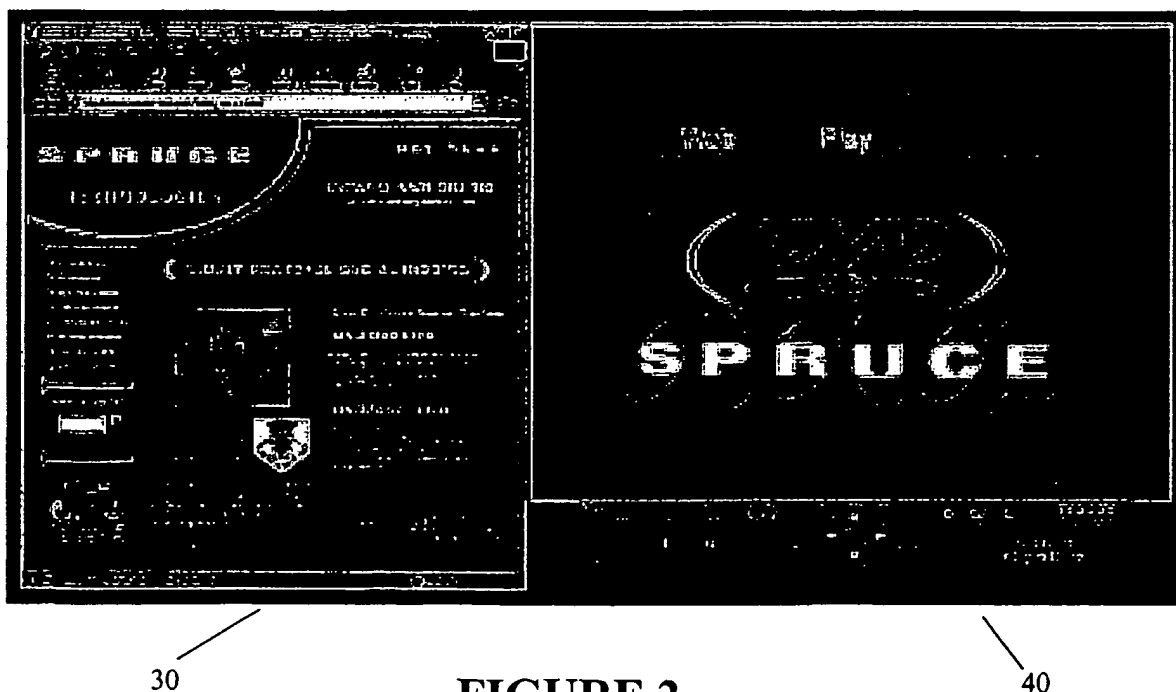
From the websites, end users will have the ability to purchase merchandise such as prior albums and future DVDonCDs. End users will also be able to download streaming audio and video from other music and video download websites, which will be encoded by the ASP, and will include web link information, the purpose of which will be to drive the end user to the artist's site.

5   The methods and implementing apparatus of the present invention have been described in connection with the preferred embodiments as disclosed herein. Although exemplary embodiments of the present invention have been shown and described in detail herein, along with certain variants thereof, other varied embodiments which incorporate the teachings of the invention may easily be constructed by those skilled in the art. Accordingly, the present invention is not

10   intended to be limited to the specific form set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the invention. In other instances, well known structures are not shown in detail but can readily constructed by those skilled in the art.
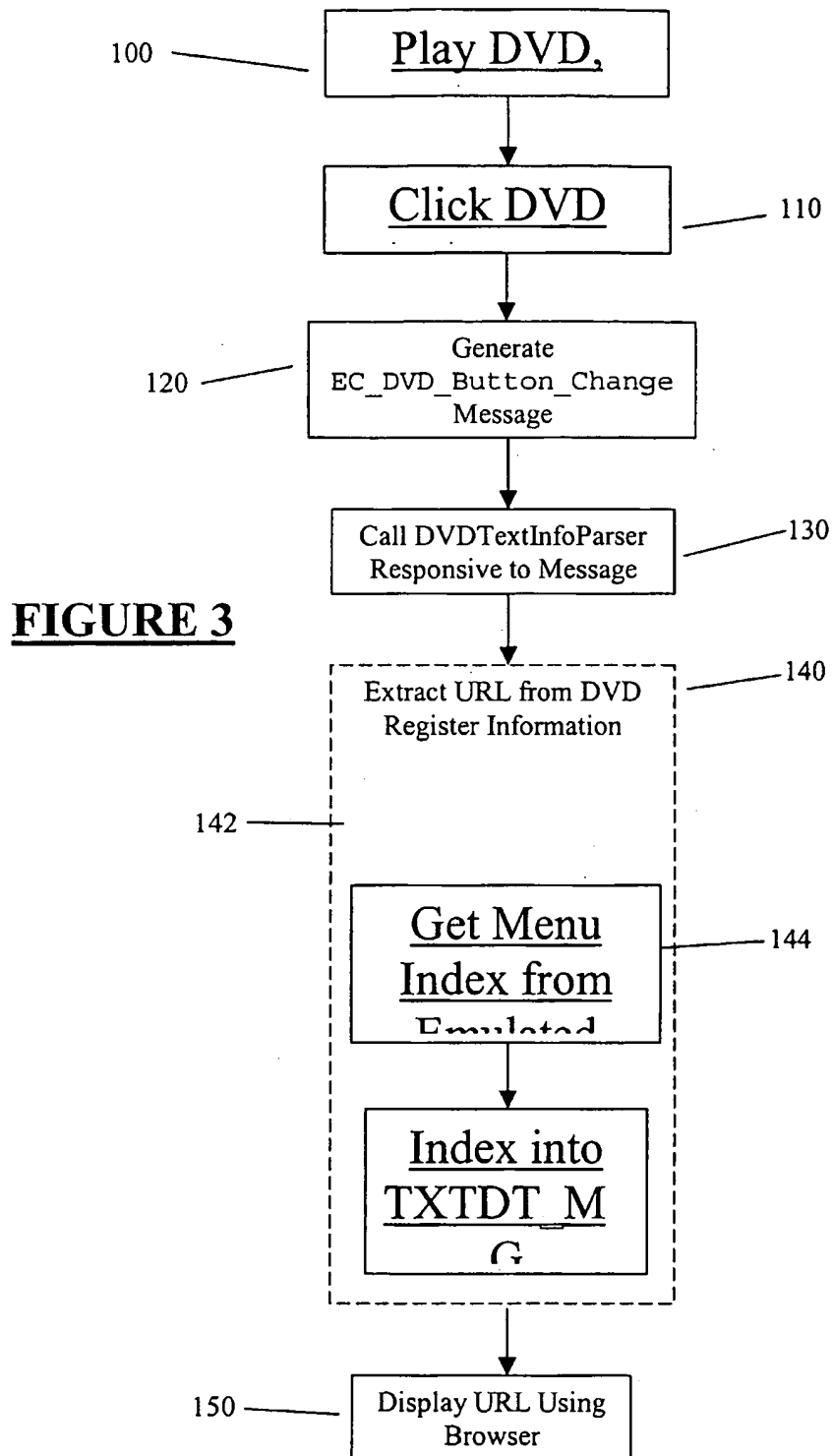
WHAT IS CLAIMED IS:

      1. A method comprising:

      distributing a DVDonCD to end users;

      placing the DVDonCD in a compatible computer or device to play a DVD video spec title;

      using web links displayed in the title to provide the end users an ability to purchase merchandise such as prior albums and future DVDonCDs and download streaming audio and video from other music and video download websites.
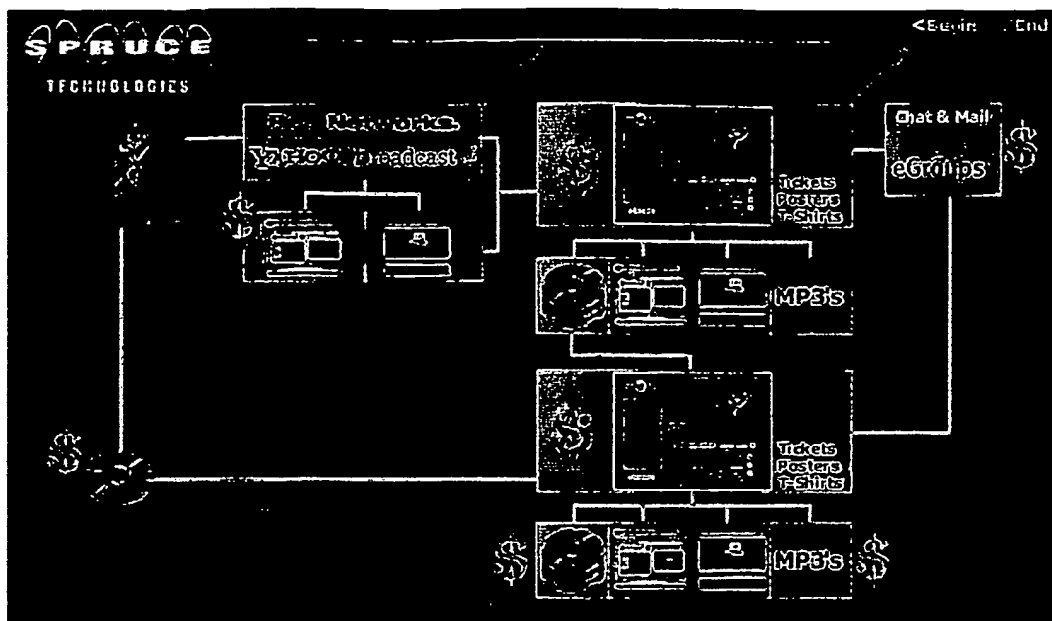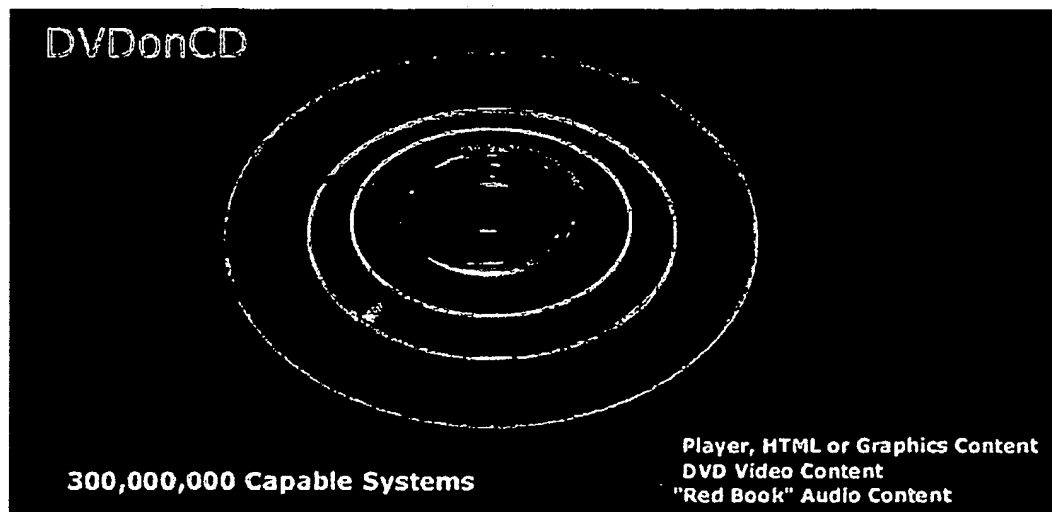
FIGURE 1

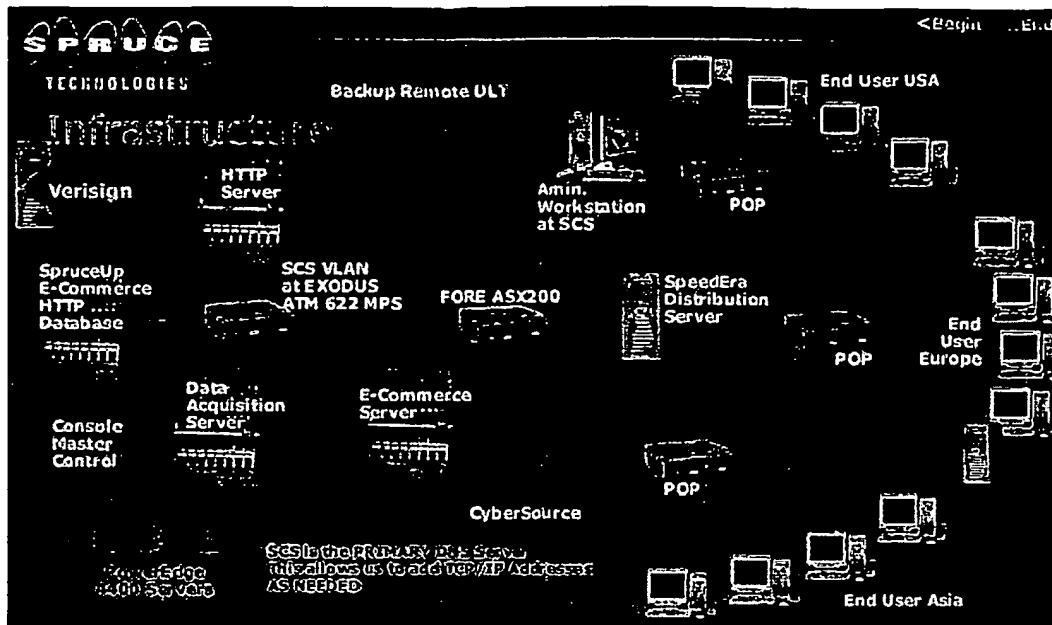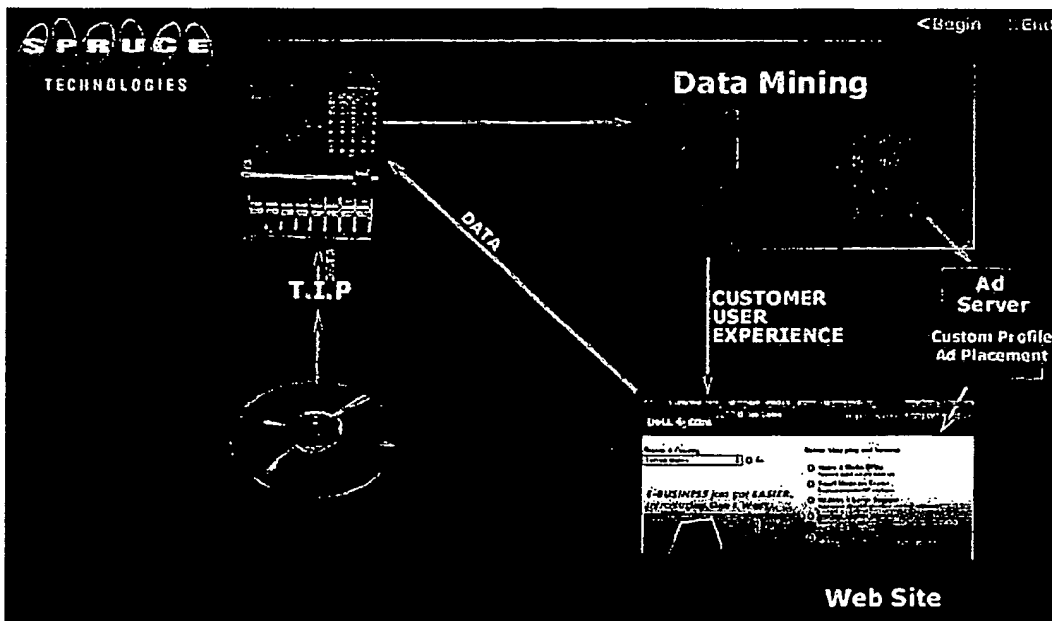30   40

FIGURE 2

FIGURE 3

100 — Play DVD,

110 — Click DVD

120 — Generate
EC_DVD_Button_Change
Message

130 — Call DVDTextInfoParser
Responsive to Message

140 — Extract URL from DVD
Register Information

142 —

144 — Get Menu
Index from
Emulated

Index into
TXTDT_M
G

150 — Display URL Using
Browser

FIGURE 4

FIGURE 5

FIGURE 6

FIGURE 7